A MULTICELLULAR DC/DC VOLTAGE CONVERTER WITH PROTECTION SWITCHES

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application is a National Stage of Application PCT/FR03/00209, filed January 22, 2003, which claims priority to French patent application 02 00750 filed January 22, 2002 and French patent application FR 02 00751 filed January 22, 2002, the disclosures of all three being incorporated herein by reference in their entirety.

FIELD

[0002] The present application relates to a voltage converter and finds applications, in particular, in the automotive field.

[0003] The application relates more particularly to a direct current/direct current (DC/DC) voltage converter that is multicellular, i.e. comprising a plurality of cells forming a corresponding number of respective individual converters connected in parallel with one another. In particular, each cell may be a chopper DC/DC converter which may presents the particular feature of being non-isolated.

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BACKGROUND

[0004] Such a chopper converter may be a controlled two-port electrical circuit comprising a first pair of positive and negative terminals and a second pair of positive and negative terminals. The first and second negative terminals may be connected together by a first determined circuit branch. Similarly, the first and second positive terminals may be connected together by a second determined circuit branch which includes an inductor forming an energy reservoir. The converter may further comprise chopper means comprising at least one controlled switch which is switched OFF and ON with a determined duty ratio under the control of a management unit.